Utility vehicle precautions (RX350)

This vehicle belongs to the utility vehicle class, which has higher ground clearance and narrower tread in relation to the height of its center of gravity to make it capable of performing in a wide variety of off-road applications.

Off-road vehicle feature

- Specific design characteristics give it a higher center of gravity than ordinary passenger cars. This vehicle design feature causes this type of vehicle to be more likely to rollover. And, utility vehicles have a significantly higher rollover rate than other types of vehicles.
- An advantage of the higher ground clearance is a better view of the road allowing you to anticipate problems.
- It is not designed for cornering at the same speeds as ordinary passenger cars any more than low-slung sports cars designed to perform satisfactorily under off-road conditions. Therefore, sharp turns at excessive speeds may cause rollover.

⚠ CAUTION

■ Off-road vehicle precautions

Always observe the following precautions to minimize the risk of death or serious injury or damage to your vehicle:

- In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Therefore, the driver and all passengers should fasten their seat belts whenever the vehicle is moving.
- Avoid sharp turns or abrupt maneuvers, if at all possible.
  Failure to operate this vehicle correctly may result in loss of control or vehicle rollover causing death or serious injury.
- Loading cargo on the roof luggage carrier will make the center of the vehicle gravity higher. Avoid high speeds, sudden starts, sharp turns, sudden braking or abrupt maneuvers, otherwise it may result in loss of control or vehicle rollover due to failure to operate this vehicle correctly.

⚠ CAUTION

- Always slow down in gusty crosswinds. Because of its profile and higher center of gravity, your vehicle is more sensitive to side winds than an ordinary passenger car. Slowing down will allow you to have better control.
- Do not drive horizontally across steep slopes. Driving straight up or straight down is preferred. Your vehicle (or any similar off-road vehicle) can tip over sideways much more easily than forward or backward.

Off-road driving

When driving your vehicle off-road, please observe the following precautions to ensure your driving enjoyment and to help prevent the closure of areas to off-road vehicles.

- Drive your vehicle only in areas where off-road vehicles are permitted to travel.
- Respect private property. Get owner's permission before entering private property.
- Do not enter areas that are closed. Honor gates, barriers and signs that restrict travel.
- Stay on established roads. When conditions are wet, driving techniques should be changed or travel delayed to prevent damage to roads.

■ Additional information for off-road driving

▶ For owners in U.S. mainland, Hawaii and Puerto Rico:

To obtain additional information pertaining to driving your vehicle off-road, consult the following organizations.

- State and Local Parks and Recreation Departments
- State Motor Vehicle Bureau
- Recreational Vehicle Clubs
- U.S. Forest Service and Bureau of Land Management

⚠ CAUTION

■ Off-road driving precautions

Always observe the following precautions to minimize the risk of death or serious injury or damage to your vehicle:

- Drive carefully when off the road. Do not take unnecessary risks by driving in dangerous places.
- Do not grip the steering wheel spokes when driving off-road. A bad bump could jerk the wheel and injure your hands. Keep both hands and especially your thumbs on the outside of the rim.
- Always check your brakes for effectiveness immediately after driving in sand, mud, water or snow.
- After driving through tall grass, mud, rock, sand, water, etc., check that there is no grass, bush, paper, rags, stone, sand, etc. adhering or trapped to the underbody. Clear off any such matter from the underbody. If the vehicle is used with these materials trapped or adhering to the underbody, a breakdown or fire could occur.
- When driving off-road or in rugged terrain, do not drive at excessive speeds, jump, make sharp turns, strike objects, etc. This may cause loss of control or vehicle rollover causing death or serious injury. You are also risking expensive damage to your vehicle's suspension and chassis.

⚠ NOTICE

■ To prevent water damage

Take all necessary safety measures to ensure that water damage to the engine or other components does not occur.

- Water entering the engine air intake will cause severe engine damage.
- Water entering the automatic transmission will cause deterioration in shift quality, locking up of your transmission accompanied by vibration, and ultimately damage.
- Water can wash the grease from wheel bearings, causing rusting and premature failure, and may also enter the differentials, transmission and transfer case, reducing the gear oil's lubricating qualities.

NOTICE

■ When you drive through water

If driving through water, such as when crossing shallow streams, first check the depth of the water and the bottom of the stream for firmness. Drive slowly and avoid deep water.

■ Inspection after off-road driving

- Sand and mud that has accumulated around brake discs may affect braking efficiency and may damage brake system components.
- Always perform a maintenance inspection after each day of off-road driving that has taken you through rough terrain, sand, mud, or water. For scheduled maintenance information, refer to the "Warranty and Services Guide/Owner's Manual Supplement/Scheduled Maintenance".

Utility vehicle precautions (RX450h)

This vehicle belongs to the utility vehicle class, which has higher ground clearance and narrower tread in relation to the height of its center of gravity.

Utility vehicle feature

- Specific design characteristics give it a higher center of gravity than ordinary passenger cars. This vehicle design feature causes this type of vehicle to be more likely to rollover. And, utility vehicles have a significantly higher rollover rate than other types of vehicles.
- It is not designed for cornering at the same speeds as ordinary passenger cars any more than low-slung sports cars designed to perform satisfactorily under off-road conditions. Therefore, sharp turns at excessive speeds may cause rollover.

⚠ CAUTION

■ Utility vehicle precautions

Always observe the following precautions to minimize the risk of death or serious injury or damage to your vehicle:

- In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Therefore, the driver and all passengers should fasten their seat belts whenever the vehicle is moving.
- Avoid sharp turns or abrupt maneuvers, if at all possible.
  Failure to operate this vehicle correctly may result in loss of control or vehicle rollover causing death or serious injury.
- Loading cargo on the roof luggage carrier will make the center of the vehicle gravity higher. Avoid high speeds, sudden starts, sharp turns, sudden braking or abrupt maneuvers, otherwise it may result in loss of control or vehicle rollover due to failure to operate this vehicle correctly.

CAUTION

- Always slow down in gusty crosswinds. Because of its profile and higher center of gravity, your vehicle is more sensitive to side winds than an ordinary passenger car. Slowing down will allow you to have better control.
- Do not drive horizontally across steep slopes. Driving straight up or straight down is preferred. Your vehicle (or any similar off-road vehicle) can tip over sideways much more easily than forward or backward.

Off-road driving

Your vehicle is not designed to be driven off-road. However, in the event that off-road driving cannot be avoided, please observe the following precautions to help avoid the areas prohibited to vehicles.

- Drive your vehicle only in areas where off-road vehicles are permitted to travel.
- Respect private property. Get owner's permission before entering private property.
- Do not enter areas that are closed. Honor gates, barriers and signs that restrict travel.
- Stay on established roads. When conditions are wet, driving techniques should be changed or travel delayed to prevent damage to roads.
- Avoid driving on very steep, slippery roads and other surfaces, such as sand, where the tires are liable to lose traction. Your vehicle may not perform as well as conventional AWD on-road vehicles on these surfaces.

■ **Additional information for off-road driving**

▶ For owners in U.S. mainland, Hawaii and Puerto Rico:

To obtain additional information pertaining to driving your vehicle off-road, consult the following organizations.

- State and Local Parks and Recreation Departments
- State Motor Vehicle Bureau
- Recreational Vehicle Clubs
- U.S. Forest Service and Bureau of Land Management

⚠ CAUTION

■ **Off-road driving precautions**

Always observe the following precautions to minimize the risk of death or serious injury or damage to your vehicle:

- Drive carefully when off the road. Do not take unnecessary risks by driving in dangerous places.
- Do not grip the steering wheel spokes when driving off-road. A bad bump could jerk the wheel and injure your hands. Keep both hands and especially your thumbs on the outside of the rim.
- Always check your brakes for effectiveness immediately after driving in sand, mud, water or snow.
- After driving through tall grass, mud, rock, sand, water, etc., check that there is no grass, bush, paper, rags, stone, sand, etc. adhering or trapped to the underbody. Clear off any such matter from the underbody. If the vehicle is used with these materials trapped or adhering to the underbody, a breakdown or fire could occur.
- When driving off-road or in rugged terrain, do not drive at excessive speeds, jump, make sharp turns, strike objects, etc. This may cause loss of control or vehicle rollover causing death or serious injury. You are also risking expensive damage to your vehicle's suspension and chassis.

NOTICE

■ To prevent water damage

Take all necessary safety measures to ensure that water damage to the hybrid battery, hybrid system or other components does not occur.

- Water entering the engine compartment may cause severe damage to the hybrid system. Water entering the interior may cause the hybrid battery stowed under the rear seats to short circuit.
- Water entering the hybrid transmission will cause deterioration in transmission quality. The malfunction indicator may come on, and the vehicle may not be drivable.
- Water can wash the grease from wheel bearings, causing rusting and premature failure, and may also enter the hybrid transmission case, reducing the gear oil's lubricating qualities.

■ When you drive through water

If driving through water, such as when crossing shallow streams, first check the depth of the water and the bottom of the riverbed for firmness. Drive slowly and avoid deep water.

■ Inspection after off-road driving

- Sand and mud that has accumulated around brake discs may affect braking efficiency and may damage brake system components.
- Always perform a maintenance inspection after each day of off-road driving that has taken you through rough terrain, sand, mud, or water. For scheduled maintenance information, refer to the "Warranty and Services Guide/Owner's Manual Supplement/Scheduled Maintenance".

Take notice of the following information about storage precautions, cargo capacity and load.

- Stow cargo and luggage in the luggage compartment whenever possible.
- Be sure all items are secured in place.
- Be careful to keep the vehicle level. Placing the weight as far forward as possible helps maintain vehicle balance.
- For better fuel economy, do not carry unnecessary weight.

Capacity and distribution

Cargo capacity depends on the total weight of the occupants.

(Cargo capacity) = (Total load capacity) – (Total weight of occupants)

Steps for Determining Correct Load Limit—

(1) Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard.

(2) Determine the combined weight of the driver and passengers that will be riding in your vehicle.

(3) Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.

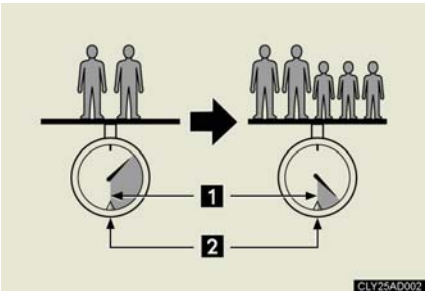
(4) The resulting figure equals the available amount of cargo and luggage load capacity.

For example, if the "XXX" amount equals 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400 – 750 (5 × 150) = 650 lbs.)

(5) Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.

(6)If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.
(→P. 944)

Example based on your vehicle



1 Cargo capacity
2 Total load capacity

When 2 people with the combined weight of 366 lb. (166 kg) are riding in your vehicle, the available amount of cargo and luggage load capacity will be as follows:

▶ RX450h 2WD models
Total load capacity: 825 lb. (370 kg)
825 lb. - 366 lb. = 459 lb. (370 kg - 166 kg = 204 kg)

▶ RX350 and RX450h AWD models
Total load capacity: 885 lb. (400 kg)
885 lb. - 366 lb. = 519 lb. (400 kg - 166 kg = 234 kg)

In this condition, if 3 more passengers with the combined weight of 388 lb. (176 kg) get on, the available cargo and luggage load will be reduced as follows:

▶ RX450h 2WD models
459 lb. - 388 lb. = 71 lb. (204 kg - 176 kg = 28 kg)

▶ RX350 and RX450h AWD models
519 lb. - 388 lb. = 131 lb. (234 kg - 176 kg = 58 kg)

As shown in the example above, if the number of occupants increases, the cargo and luggage load will be reduced by an amount that equals the increased weight due to the additional occupants. In other words, if an increase in the number of occupants causes an excess of the total load capacity (combined weight of occupants plus cargo and luggage load), you must reduce the cargo and luggage on your vehicle.

⚠ CAUTION

■ Things that must not be carried in the luggage compartment

The following things may cause a fire if loaded in the luggage compartment:

- Receptacles containing gasoline
- Aerosol cans

■ Storage precautions

Observe the following precautions.
Failure to do so may result in death or serious injury.

- Stow cargo and luggage in the luggage compartment whenever possible.
- Do not stack cargo and luggage in the luggage compartment higher than the seatbacks.
  Such items may be thrown about and possibly injure people in the vehicle in the event of sudden braking or in an accident.
- Do not place cargo or luggage in or on the following locations as the items may get under the brake or accelerator pedal and prevent the pedals from being depressed properly, block the driver's vision, or hit the driver or passengers, causing an accident:
  - At the feet of the driver
  - On the front passenger or rear seats (when stacking items)
  - On the luggage cover
  - On the instrument panel
  - On the dashboard
- Secure all items in the occupant compartment, as they may shift and injure someone in the event of sudden braking, sudden swerving or an accident.

⚠ CAUTION

- Never allow anyone to ride in the luggage compartment. It is not designed for passengers. They should ride in their seats with their seat belts properly fastened. Otherwise, they are much more likely to suffer death or serious bodily injury, in the event of sudden braking, sudden swerving or an accident.

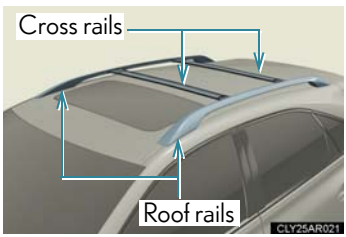
■ Capacity and distribution

- Do not exceed the maximum axle weight rating or the total vehicle weight rating.
- Even if the total load of occupant's weight and the cargo load is less than the total load capacity, do not apply the load unevenly. Improper loading may cause deterioration of steering or braking control which may cause death or serious injury.

■ Roof luggage carrier precautions (if equipped)

To use the roof rails as a roof luggage carrier, you must fit the roof rails with two or more genuine Lexus cross rails or their equivalent.

When you load cargo on the roof luggage carrier, observe the following:



- Place the cargo so that its weight is distributed evenly between the front and rear axles.
- If loading long or wide cargo, never exceed the vehicle's overall length or width. (→P. 944)
- Before driving, make sure the cargo is securely fastened on the roof luggage carrier.
- Loading cargo on the roof luggage carrier will make the center of gravity of the vehicle higher. Avoid high speeds, sudden starts, sharp turns, sudden braking or abrupt maneuvers, otherwise the result may be a loss of control or vehicle rollover due to failure to operate this vehicle correctly and result in death or serious injury.
- If driving for long distances, on rough roads, or at high speeds, stop the vehicle now and then during the trip to make sure the cargo remains in its place.
- Do not exceed 165 lb. (75 kg) cargo weight on the roof luggage carrier.
- To reduce wind noise when there is no luggage loaded on the roof luggage carrier, move the front cross rail to the front-most position and the rear cross rail to the rearmost position.

NOTICE

■ **When loading cargo**

Be careful not to scratch the surface of the moon roof.

Vehicle load limits

Vehicle load limits include total load capacity, seating capacity, TWR (Trailer Weight Rating) and cargo capacity.

Total load capacity

RX450h 2WD models: 825 lb. (370 kg)
RX350 and RX450h AWD models: 885 lb. (400 kg)

Total load capacity means the combined weight of occupants, cargo and luggage.

Seating capacity: 5 occupants (Front 2, Rear 3)

Seating capacity means the maximum number of occupants whose estimated average weight is 150 lb. (68 kg) per person.

TWR (Trailer weight rating) (RX350)

Without a towing package: 2000 lb. (907 kg)
With a towing package: 3500 lb. (1588 kg)

TWR means the maximum gross trailer weight (trailer weight plus its cargo weight) that your vehicle is able to tow.

TWR (Trailer Weight Rating) (RX450h AWD models with towing package)

3500 lb. (1588 kg)

TWR means the maximum gross trailer weight (trailer weight plus its cargo weight) that your vehicle is able to tow.

TWR (Trailer Weight Rating) (RX450h 2WD models and RX450h AWD models without towing package)

Lexus does not recommend towing a trailer with your vehicle.

Cargo capacity

Cargo capacity may increase or decrease depending on the weight and the number of occupants.

Total load capacity and seating capacity

These details are also described on the tire and loading information label.
(→P. 783)

⚠ CAUTION

■ Overloading the vehicle

Do not overload the vehicle.
It may not only cause damage to the tires, but also degrade steering and braking ability, resulting in an accident.

Winter driving tips

Carry out the necessary preparations and inspections before driving the vehicle in winter. Always drive the vehicle in a manner appropriate to the prevailing weather conditions.

Pre-winter preparations

- Use fluids that are appropriate to the prevailing outside temperatures.
  - Engine oil
  - Engine coolant
  - Power control unit coolant (RX450h)
  - Washer fluid
- Have a service technician inspect the condition of the 12-volt battery.
- Have the vehicle fitted with four snow tires or purchase a set of tire chains for the front tires.

  Ensure that all tires are the same size and brand, and that chains match the size of the tires.

Before driving the vehicle

Perform the following according to the driving conditions:

- Do not try to forcibly open a window or move a wiper that is frozen. Pour warm water over the frozen area to melt the ice. Wipe away the water immediately to prevent it from freezing.
- To ensure proper operation of the climate control system fan, remove any snow that has accumulated on the air inlet vents in front of the windshield.
- Check for and remove any excess ice or snow that may have accumulated on the exterior lights, vehicle's roof, chassis, around the tires or on the brakes.
- Remove any snow or mud from the bottom of your shoes before getting in the vehicle.

When driving the vehicle

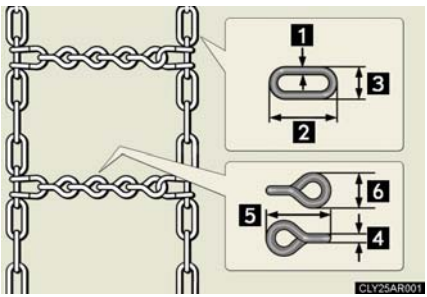
Accelerate the vehicle slowly, keep a safe distance between you and the vehicle ahead, and drive at a reduced speed suitable to road conditions.

When parking the vehicle

Park the vehicle and move the shift lever to P without setting the parking brake. The parking brake may freeze up, preventing it from being released. If necessary, block the wheels to prevent inadvertent sliding or creeping.

Selecting tire chains

Use the correct tire chain size when mounting the tire chains. Chain size is regulated for each tire size.



Side chain:
1 0.12 in. (3 mm) in diameter
2 0.98 in. (25 mm) in length
3 0.43 in. (10.8 mm) in width
Cross chain:
4 0.15 in. (3.9 mm) in diameter
5 1.00 in. (25.3 mm) in length
6 0.54 in. (13.8 mm) in width

Regulations on the use of tire chains

Regulations regarding the use of tire chains vary depending on location and type of road. Always check local regulations before installing chains.

■ Tire chain installation

Observe the following precautions when installing and removing chains:

- Install and remove tire chains in a safe location.
- Install tire chains on the front tires only. Do not install tire chains on the rear tires.
- Install the tire chains on front tires as tightly as possible. Retighten chains after driving 1/4 —1/2 mile (0.5 —1.0 km).
- Install tire chains following the instructions provided with the tire chains.

⚠ CAUTION

■ Driving with snow tires

Observe the following precautions to reduce the risk of accidents.
Failure to do so may result in a loss of vehicle control and cause death or serious injury.

- Use tires of the size specified for your vehicle.
- Maintain the recommended level of air pressure.
- Do not drive in excess of 75 mph (120 km/h), regardless of the type of snow tires being used.
- Use snow tires on all, not just some wheels.

■ Driving with tire chains

Observe the following precautions to reduce the risk of accidents.
Failure to do so may result in the vehicle being unable to be driven safely, and may cause death or serious injury.

- Do not drive in excess of the speed limit specified for the tire chains being used, or 30 mph (50 km/h), whichever is lower.
- Avoid driving on bumpy road surfaces or over potholes.
- Avoid sudden acceleration, abrupt steering, sudden braking and shifting operations that cause sudden engine braking.
- Slow down sufficiently before entering a curve to ensure that vehicle control is maintained.

NOTICE

■ **Repairing or replacing snow tires**

Request repairs or replacement of snow tires from Lexus dealers or legitimate tire retailers.
This is because the removal and attachment of snow tires affects the operation of the tire pressure warning valves and transmitters.

■ **Fitting tire chains**

The tire pressure warning valves and transmitters may not function correctly when tire chains are fitted.

Your vehicle is designed primarily as a passenger-and-load-carrying vehicle. Towing a trailer can have an adverse impact on handling, performance, braking, durability, and fuel consumption. For your safety and the safety of others, you must not overload your vehicle or trailer. You must also ensure that you are using appropriate towing equipment, that the towing equipment has been installed correctly and used properly, and that you employ the requisite driving habits.

Vehicle-trailer stability and braking performance are affected by trailer stability, brake performance and setting, trailer brakes, the hitch and hitch systems (if equipped).

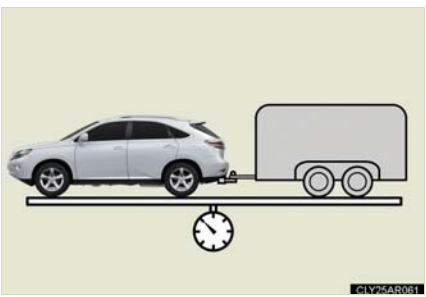
To tow a trailer safely, use extreme care and drive the vehicle in accordance with your trailer's characteristics and operating conditions.

Lexus warranties do not apply to damage or malfunction caused by towing a trailer for commercial purposes.

Contact your Lexus dealer for further information about additional requirements such as towing kits, etc.

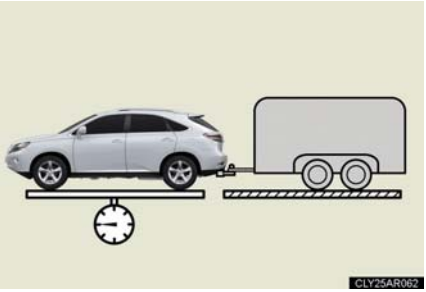
Towing related terms

GCWR (Gross Combination Weight Rating)



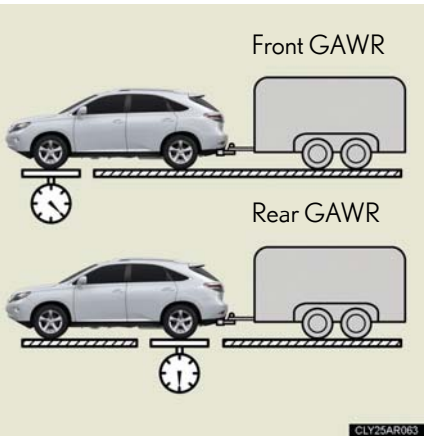
The maximum allowable gross combination weight. The gross combination weight is the sum of the total vehicle weight (including the occupants, cargo and any optional equipment installed on the vehicle) and the weight of the trailer being towed (including the cargo in the trailer).

GVWR (Gross Vehicle Weight Rating)



The maximum allowable gross vehicle weight. The gross vehicle weight is the total weight of the vehicle. When towing a trailer, it is the sum of the vehicle weight (including the occupants, cargo and any optional equipment installed on the vehicle) and the tongue weight.

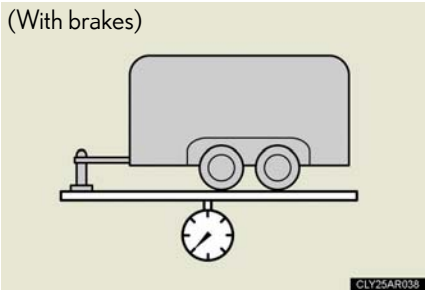
GAWR (Gross Axle Weight Rating)



The maximum allowable gross axle weight. The gross axle weight is the load placed on each axle (front and rear).

TWR (Trailer Weight Rating)

(With brakes)



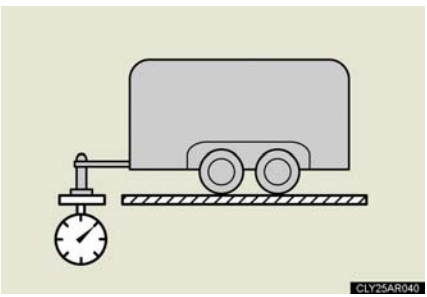
The maximum allowable gross trailer weight. The gross trailer weight is the sum of the trailer weight and the weight of the cargo in the trailer.

TWR is calculated assuming base vehicle with one driver, one front passenger, towing package (if available), hitch and hitch systems (if required).

Additional optional equipment, passengers and cargo in the vehicle will reduce the trailer weight rating so as not to exceed GCWR, GVWR and GAWR.

If the gross trailer weight exceeds 3000 lb. (1360 kg), it is recommended to use a trailer with 2 or more axles.

Tongue Weight



The load placed on the trailer hitch ball. (→P. 378)

Weight limits

- The gross trailer weight must never exceed the TWR described in the table. (→P. 377)
- The gross combination weight must never exceed the GCWR described in the table. (→P. 377)

- The gross vehicle weight must never exceed the GVWR indicated on the Certification Label.
- The gross axle weight on each axle must never exceed the GAWR indicated on the Certification Label.

- If the gross trailer weight is over the unbraked TWR, trailer service brakes are required.
- If the gross trailer weight is over 2000 lb. (907 kg), a sway control device with sufficient capacity is required.

GCWR, TWR, Unbraked TWR, Fifth wheel and Gooseneck towing TWR

Confirm that the gross trailer weight, gross combination weight, gross vehicle weight, gross axle weight and tongue weight are all within the limits.

GCWR* and TWR*

Towing type	Driving system	GCWR	TWR
RX350 without towing package	2WD	7560 lb. (3429 kg)	2000 lb. (907 kg)
	AWD	7650 lb. (3470 kg)	
RX350 with towing package	2WD	9060 lb. (4109 kg)	3500 lb. (1588 kg)
	AWD	9150 lb. (4150 kg)	
RX450h with towing package	AWD	9480 lb. (4297 kg)	3500 lb. (1588 kg)

Unbraked TWR*

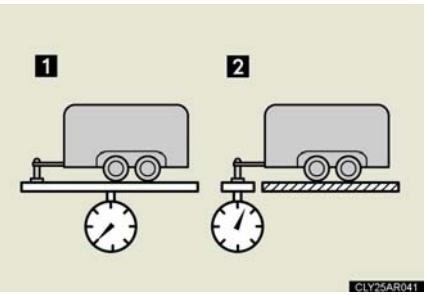
1000 lb. (453 kg)

*: These models meet the tow-vehicle trailering requirement of SAE International per SAE J2807.

Trailer Tongue Weight

- A recommended tongue weight varies in accordance with the types of trailers or towing as described below.
- To ensure the recommended values shown below, the trailer must be loaded by referring to the following instructions.
  - Tongue Weight

    The gross trailer weight should be distributed so that the tongue weight is 9% to 11%. (Tongue weight /Gross trailer weight x 100 = 9% to 11%)



1 Gross trailer weight
2 Tongue weight

If using a weight distributing hitch when towing, return the front axle to the same weight as before the trailer connection.

If front axle weight cannot be measured directly, measure the front fender height above the front axle before connection. Adjust weight distributing hitch torque until front fender is returned to the same height as before connection.

The gross trailer weight, gross axle weight and tongue weight can be measured with platform scales found at a highway weighing station, building supply company, trucking company, junk yard, etc.

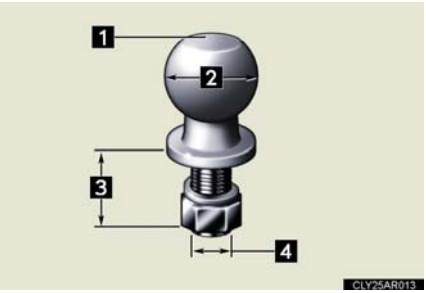
Hitch

Trailer hitch assemblies have different weight capacities. Lexus recommends the use of Lexus hitch/bracket for your vehicle. For details, contact your Lexus dealer.

- If you wish to install a trailer hitch, contact your Lexus dealer.
- Use only a hitch that conforms to the gross trailer weight requirement of your vehicle.
- Follow the directions supplied by the hitch manufacturer.
- Lubricate the hitch ball with a light coating of grease.
- Remove the trailer hitch whenever you are not towing a trailer. After removing the hitch, seal any mounting hole in the vehicle body to prevent entry of any substances into the vehicle.

Selecting trailer ball

Use the correct trailer ball for your application.



1 Trailer ball load rating

Matches or exceeds the gross trailer weight rating of the trailer.

2 Ball diameter

Matches the size of the trailer coupler. Most couplers are stamped with the required trailer ball size.

Trailer class	Typical trailer ball size
IV	2 5/16 in.
II and III	2 in.
I	1 7/8 in.

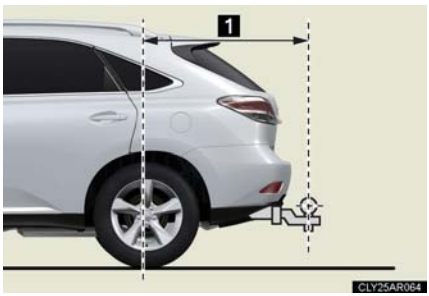
3 Shank length

Protrudes beyond the bottom of the lock washer and nut by at least 2 threads.

4 Shank diameter

Matches the ball mount hole diameter size.

Positions for towing hitch receiver and hitch ball



1 Weight carrying ball position: 45.1 in. (1145 mm)

Connecting trailer lights

4 pin connector

Use the wire harness stored in the rear end under body.

■ **Auto current cut-off function**

In case of over current, the auto cut-off function stops the power flowing to the trailer lights to prevent damage to the vehicle's electrical system.

This function is activated when the rated current of any of the following trailer light circuit components is exceeded:

- Tail lights: maximum 7.8 A
- Stop/turn signal light (right): maximum 4.5 A
- Stop/turn signal light (left): maximum 4.5 A

■ **When the auto current cut function is activated**

If a trailer light does not come on due to the activation of the auto current cut function, the light system will need to be reset.

Follow the reset procedure shown below.

- If a tail light does not come on, turn off the headlight switch.
- If the right-side stop/turn signal light does not come on, put the turn signal in the off position or remove foot from the brake pedal.
- If the left-side stop/turn signal light does not come on, put the turn signal in the off position or remove foot from the brake pedal.

If the emergency flashers do not operate, press the emergency flasher switch to turn them off.

After the light system is reset, operate the light switches again to see if the lights operate normally.

If the lights do not operate normally, have the vehicle inspected by your Lexus dealer.

Trailer towing tips

Your vehicle will handle differently when towing a trailer. Help to avoid an accident, death or serious injury, keep the following in mind when towing:

- Speed limits for towing a trailer vary by state or province. Do not exceed the posted towing speed limit.
- Lexus recommends that the vehicle-trailer speed limit is 65 mph (104 km/h) on a flat, straight, dry road. Do not exceed this limit, the posted towing speed limit or the speed limit for your trailer as set forth in your trailer owner's manual, whichever is lowest. Instability of the towing vehicle-trailer combination (trailer sway) increases as speed increases. Exceeding speed limits may cause loss of control.
- Before starting out, check the trailer lights, tires and the vehicle-trailer connections. Recheck after driving a short distance.
- Practice turning, stopping and reversing with the trailer attached in an area away from traffic until you become accustomed to the feel of the vehicle-trailer combination.
- Reversing with a trailer attached is difficult and requires practice. Grip the bottom of the steering wheel and move your hand to the left to move the trailer to the left. Move your hand to the right to move the trailer to the right. (This is generally opposite to reversing without a trailer attached.) Avoid sharp or prolonged turning. Have someone guide you when reversing to reduce the risk of an accident.
- As stopping distance is increased when towing a trailer, vehicle-to-vehicle distance should be increased. For each 10 mph (16 km/h) of speed, allow at least one vehicle and trailer length.
- Avoid sudden braking as you may skid, resulting in the trailer jackknifing and a loss of vehicle control. This is especially true on wet or slippery surfaces.
- Avoid jerky starts or sudden acceleration.

- Avoid jerky steering and sharp turns, and slow down before making a turn.
- Note that when making a turn, the trailer wheels will be closer than the vehicle wheels to the inside of the turn. Compensate by making a wider than normal turning radius.
- Slow down before making a turn, in cross winds, on wet or slippery surfaces, etc.
  Increasing vehicle speed can destabilize the trailer.
- Take care when passing other vehicles. Passing requires considerable distance. After passing a vehicle, do not forget the length of your trailer, and be sure you have plenty of room before changing lanes.
- To maintain engine braking efficiency and charging system performance when using engine braking, do not put the transmission in D.
- Instability happens more frequently when descending steep or long downhill grades. Before descending, slow down and downshift. Do not make sudden downshifts while descending steep or long downhill grades.
- Avoid holding the brake pedal down too long or applying the brakes too frequently. This could cause the brakes to overheat and result in reduced braking efficiency.
- Due to the added load of the trailer, your vehicle's engine may overheat on hot days (at temperatures over 85°F [30°C]) when driving up a long or steep grade. If the engine coolant temperature gauge indicates overheating, immediately turn off the air conditioning (if in use), pull your vehicle off the road and stop in a safe spot. (→P. 930, 933)

● Always place wheel blocks under both the vehicle's and the trailer's wheels when parking. Apply the parking brake firmly, and put the transmission in P. Avoid parking on a slope, but if unavoidable, do so only after performing the following:

STEP 1 Apply the brakes and keep them applied.

STEP 2 Have someone place wheel blocks under both the vehicle's and trailer's wheels.

STEP 3 When the wheel blocks are in place, release the brakes slowly until the blocks absorb the load.

STEP 4 Apply the parking brake firmly.

STEP 5 Shift into P and turn off the engine (RX350) or hybrid system (RX450h).

● When restarting after parking on a slope:

STEP 1 With the transmission in P, start the engine (RX350) or hybrid system (RX450h). Be sure to keep the brake pedal depressed.

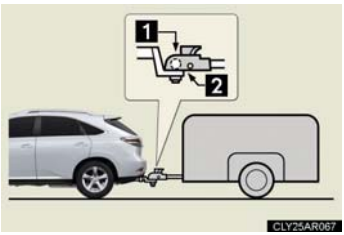
STEP 2 Shift into a forward gear. If reversing, shift into R.

STEP 3 Release the parking brake and brake pedal, and slowly pull or back away from the wheel blocks. Stop and apply the brakes.

STEP 4 Have someone retrieve the blocks.

■ Matching trailer ball height to trailer coupler height

No matter which class of tow hitch applies, for a more safe trailer hookup, the trailer ball setup must be the proper height for the coupler on the trailer.



1 Coupler

2 Trailer ball

■ Before towing

Check that the following conditions are met:

- Ensure that your vehicle's tires are properly inflated. (→P. 957, 960)
- Trailer tires are inflated according to the trailer manufacturer's recommendation.
- All trailer lights work as required by law.
- All lights work each time you connect them.
- The trailer ball is set at the proper height for the coupler on the trailer.
- The trailer is level when it is hitched.
  Do not drive if the trailer is not level, and check for improper tongue weight, overloading, worn suspension, or other possible causes.
- The trailer cargo is securely loaded.
- The rear view mirrors conform to all applicable federal, state/provincial or local regulations. If they do not, install rear view mirrors appropriate for towing purposes.

Break-in schedule

If your vehicle is new or equipped with any new power train components (such as an engine, transmission, differential or wheel bearing), Lexus recommends that you do not tow a trailer until the vehicle has been driven for over 500 miles (800 km).

After the vehicle has been driven for over 500 miles (800 km), you can start towing. However, for the next 500 miles (800 km), drive the vehicle at a speed of less than 50 mph (80 km/h) when towing a trailer, and avoid full throttle acceleration.

Maintenance

- If you tow a trailer, your vehicle will require more frequent maintenance due to the additional load. (See "Warranty and Services Guide", "Owner's Manual Supplement" or "Scheduled Maintenance".)
- Retighten the fixing bolts of the towing ball and bracket after approximately 600 miles (1000 km) of trailer towing.

If trailer sway occurs

One or more factors (crosswinds, passing vehicles, rough roads, etc.) can adversely affect handling of your vehicle and trailer, causing instability.

- If trailer swaying occurs:
  - Firmly grip the steering wheel. Steer straight ahead.
    Do not try to control trailer swaying by turning the steering wheel.
  - Begin releasing the accelerator pedal immediately but very gradually to reduce speed.
    Do not increase speed. Do not apply vehicle brakes.

If you make no extreme correction with the steering or brakes, your vehicle and trailer should stabilize.

- After the trailer swaying has stopped:
  - Stop in a safe place. Get all occupants out of the vehicle.
  - Check the tires of the vehicle and the trailer.
  - Check the load in the trailer.
    Make sure the load has not shifted.
    Make sure the tongue weight is appropriate, if possible.
  - Check the load in the vehicle.
    Make sure the vehicle is not overloaded after occupants get in.

If you cannot find any problems, the speed at which trailer swaying occurred is beyond the limit of your particular vehicle-trailer combination.
Drive at a lower speed to prevent instability. Remember that swaying of the towing vehicle-trailer increases as speed increases.

⚠ CAUTION

■ Trailer towing precautions

To tow a trailer safely, use extreme care and drive the vehicle in accordance with the trailer's characteristics and operating conditions. Failure to do so could cause an accident resulting in death or serious injury. Vehicle stability and braking performance are affected by trailer stability, brake setting and performance, and the hitch. Your vehicle will handle differently when towing a trailer.

■ To avoid accident or injury

- Do not exceed the TWR, unbraked TWR, GCWR, GVWR or GAWR.
- If the gross trailer weight is over 2000 lb. (907 kg), a sway control device with sufficient capacity is required.
- Adjust the tongue weight within the appropriate range. Place heavier loads as close to the trailer axle as possible.
- Do not exceed 65 mph (104 km/h), the posted towing speed limit or the speed limit for your trailer as set forth in your trailer owner's manual, whichever is lowest. Slow down sufficiently before making a turn, in cross winds, on wet or slippery surface, etc. to help avoid an accident. If you experience a vehicle-trailer instability from reducing a certain speed, slow down and make sure you keep your vehicle speed under the speed of which you experience the instability.
- Do not make jerky, abrupt or sharp turns.
- Do not apply the brakes suddenly as you may skid, resulting in jackknifing and loss of vehicle control. This is especially true on wet or slippery surfaces.
- Do not exceed the trailer hitch assembly weight, gross vehicle weight, gross axle weight and trailer tongue weight capacities.
- Do not use cruise control when towing.
- Slow down and downshift before descending steep or long downhill grades. Do not make sudden downshifts while descending steep or long downhill grades.
- Vehicle-trailer instability is more likely on steep long downhills. Before descending steep or long downhill grades, slow down and downshift. Do not make sudden downshifts when descending steep or long downhill grades. Avoid holding the brake pedal down too long or applying the brakes too frequently. This could cause the brakes to overheat and result in reduced braking efficiency.
- Do not tow a trailer when the compact spare tire is installed on your vehicle.

⚠ CAUTION

■ Hitch

Trailer hitch assemblies have different weight capacities established by the hitch manufacturer. Even though the vehicle may be physically capable of towing a higher weight, the operator must determine the maximum weight rating of the particular hitch assembly and never exceed the maximum weight rating specified for the trailer-hitch. Exceeding the maximum weight rating set by the trailer-hitch manufacturer can cause an accident resulting in death or serious personal injuries.

■ When towing a trailer

Lexus recommends trailers with brakes that conform to any applicable federal and state/provincial regulations.

- If the gross trailer weight exceeds unbraked TWR, trailer brakes are required. Lexus recommends trailers with brakes that conform to all applicable federal and state/provincial regulations.
- Never tap into your vehicle's hydraulic system, as this will lower the vehicle's braking effectiveness.
- Never tow a trailer without using a safety chain securely attached to both the trailer and the vehicle. If damage occurs to the coupling unit or hitch ball, there is danger of the trailer wandering into another lane.

⚠ NOTICE

■ When installing a trailer hitch

Use only the position recommended by your Lexus dealer. Do not install the trailer hitch on the bumper; this may cause body damage.

■ Do not directly splice trailer lights

Do not directly splice trailer lights. Directly splicing trailer lights may damage your vehicle's electrical system and cause a malfunction.

Trailer towing (RX450h 2WD models and RX450h AWD models without towing package)

Lexus does not recommend towing a trailer with your vehicle. Lexus also does not recommend the installation of a tow hitch or the use of a tow hitch carrier for a wheelchair, scooter, bicycle, etc. Your vehicle is not designed for trailer towing or for the use of tow hitch mounted carriers.

Dinghy towing

Your vehicle is not designed to be dinghy towed (with 4 wheels on the ground) behind a motor home.

NOTICE

To avoid serious damage to your vehicle

Do not tow your vehicle with four wheels on the ground.

To prevent causing serious damage to the transmission and Active Torque Control 4WD system (RX350 AWD models)

2WD models: Never tow this vehicle from the rear with the front wheels on the ground. This may cause serious damage to the transmission.

AWD models: Never tow this vehicle with any of the wheels on the ground. This may cause serious damage to the transmission and Active Torque Control 4WD system (RX350 AWD models).